

# Prevalence of Internet Addiction among University Students in Khalkhal city, Iran in 2015: A Cross-sectional Study

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**ABSTRACT----** *The widespread use of the internet follows serious side effects that one of the most destructive of them can be internet addiction. Due to the increasing use of the internet among the university students, the aim of this study was assessment the internet addiction rate among university students of Khalkhal city. This is a cross-sectional descriptive study that has been done on 200 students which was selected randomly from all university students. Data gathered by a questionnaire consisted of three parts: demographic data, reasons for the use of the Internet and Yang Internet Addiction Test. Collected Data were analyzed by statistical methods in SPSS.19 software. 79.5% of the study population had normal situation in terms of Internet addiction and 20.5% had Internet addiction (severe and mild). There is a statistically significant association between the time and type of using the Internet and internet addiction rate. Results showed that about 20% of students have some degrees of Internet addiction (mild or severe), so raising their knowledge about the disadvantages of internet addiction is essential.*

**Keywords---** Internet addiction, student, Khalkhal

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## 1. INTRODUCTION

Internet is the most advanced recent achievements of Human that covers Wide network and countless of multiple bonds and history of its emergence back to the late 1960s and early 1970s.<sup>[1]</sup> Along with the increasingly widespread access to the Internet, some changes were created in their social relations and Internet allocated important part of their educational activities, employment and leisure. Therefore, it is likely that benefit from this phenomenon have an impact on the type of actions, priorities and orientate of them. Whatever relationship between adolescents and young people in the virtual world increases, reduced the scope of their relations in the real world. Internet has affected all aspects of our lives. Unique features of internet such as ease of access to the internet, 24-hour availability, simplicity, low cost, information access, anonymity of its users and etc. leads to a large turnout of people all around the world.<sup>[2]</sup> Uncontrolled use of this tool can endanger physical evolve, social and psychological growth of young people and cause social isolation, loneliness, isolation from family and mental health problems.<sup>[3]</sup>

Internet addiction is a major problem in recent years that is considered and some authors have been cited as the most destructive effects of Internet use.<sup>[4]</sup> Internet addiction is one of the problems emerged with the development of technology.<sup>[5]</sup> Generally, this disorder can be defined as a form of Internet use that can be cause psychological, social, academic or occupational difficulties. Internet addiction create a behavioral dependency that can be determined with the following features:

- \* Increasing costs for Internet and issues related to it,
- \*Unpleasant emotions such as anxiety or depression when person is not in contact with the Internet,
- \*Tolerance and accustoming to the effects of being at Internet,
- \*Denial of problematic behaviors.<sup>[6]</sup>

In Iran, according to the latest statistics, the number of Internet users is growing dramatically that most of its users are young people. Bahri & et.al. Study that was conducted on internet users in Gonabad University of Medical Sciences, showed that 9.5% of students were addicted to internet and 21.5% were at risk of Internet addiction.<sup>[7]</sup> In study of Vahidifar & et.al. That was conducted on internet users in North Khorasan University of Medical Sciences, 20.7% of students had behavior of Internet addiction.<sup>[8]</sup>

The researchers believe that the prevalence of Internet addiction among young people nowadays, can be discussed as a serious crisis in their personal and social life, as well as educational settings such as schools and universities are the perfect places for Internet addiction.<sup>[9,10]</sup> So students according to age appropriateness and the nature of their job are at risk of Internet addiction. With regard to these contents and the implementation of research project in the field of Internet addiction in the Khalkhal city universities, research in this area was necessary.

## 2. MATERIALS AND METHODS

This is a descriptive cross-sectional study that has been done on 200 university students which selected randomly from all Khalkhal universities. The data collection instrument consisted of three parts: Demographic characteristics including age, gender, education, marital status, university of the research case. Concerns, amount and how to use the Internet, including: time use of the Internet, where Internet usage, type of Internet use, the concerns of users when they connect to the Internet. Yang Internet Addiction questionnaire consists of 20 statements that were evaluated using Likert scale from 1 to 5. Grading is rarely, occasionally, frequently, often and always. The scale score of at least 20 and the maximum is 100. Based on the scores obtained from this scale, individuals are divided in three groups of normal (scores between 20-49), Mild Internet addiction (scores between 50-79) and Severe Internet addiction (scores between 80-100). In this study, participants will be assured that their information had confidential and filled the consent form before study. Collected data were analyzed by statistical methods such as chi-square test. The  $p < 0.05$  was considered as significant level.

## 3. RESULTS

The mean age of participants were  $22.6 \pm 4.1$  years (range 18-50). 70 (35%) of samples were male and 167 (83.5%) were single. 71.5% of students were studied in medical fields that 22.4% of them have internet addiction. (Table 1)

For the most appropriate time to use the Internet, most students (40%) referred to the night. Of all students, 37% use internet at the home. The highest rate of Internet use was in the scientific topics (42.5%) and the lowest was related to chat (11.5%). Among the concerns of students using the Internet, the low speed of Internet was the effective factor (53%) and in the second rate was filtering with 24%. Of all students, 20.5% had Internet addiction (mild to severe rate).

There was statistically significant relation between internet addiction rate and time and type of internet use among students. But there wasn't significant relation between other variables and internet addiction rate among students. (Table 1)

Table 1. Characteristics of the participants in research by internet addiction rate

Internet addiction		Normal	Mild	Severe	Total	p-value
Variables						
age	$\leq 21$	72(75.8)	22(23.2)	1(1.1)	95(47.5)	0.71
	22-29	77(83.7)	14(15.2)	1(1.1)	92(46)	
	$\geq 30$	10(76.9)	3(23.1)	0	13(6.5)	
sex	male	56(80)	14(20)	0	70(35)	0.57
	female	103(79.2)	25(19.2)	2(1.5)	130(65)	
Field of Study	Medical	111(77.6)	30(21)	2(1.4)	143(71.5)	0.45
	Non-medical	48(84.2)	9(15.8)	0	57(28.5)	
Marital status	Single	128(76.6)	37(22.2)	2(1.2)	167(83.5)	0.078

	Married	31(93.9)	2(6.1)	0	33(16.5)	
Time of internet use	Morning	30(90.9)	3(9.1)	0	33(16.5)	0.001
	Afternoon	46(85.2)	8(14.8)	0	54(27)	
	Night	67(83.8)	13(16.3)	0	80(40)	
	After midnight	16(48.5)	15(45.5)	2(6.1)	33(16.5)	
Location of internet use	Home	54(73)	18(24.3)	2(2.7)	74(37)	0.42
	Dorm	60(81.1)	14(18.9)	0	74(37)	
	Coffee-net	25(86.2)	4(13.8)	0	29(14.5)	
	University	20(87)	3(13)	0	23(11.5)	
Type of internet use	Chat	8(34.8)	15(65.2)	0	23(11.5)	0.001
	News	23(88.5)	2(7.7)	1(3.8)	26(13)	
	Scientific	77(90.6)	8(9.4)	0	85(42.5)	
	Others	51(77.3)	14(21.2)	1(1.5)	66(33)	

#### 4. DISCUSSION

The results of this study showed that 79.5% of those surveyed in terms of Internet addiction have normal condition and 20.5% have mild to severe addiction. In Khodadoust and et al study, 69% of samples had not internet addiction and 31% had mild to severe addiction. Results of the Vahidifar and et.al study showed, 79.3% normal and 20.6% had mild to severe internet addiction.<sup>[8]</sup> Mohammadi & et.al. In a study showed that average of internet addiction among youth in Hamadan is 39.6%.<sup>[12]</sup> Results of the Bahri & et.al study in Gonabad City showed that 9.5% of students had internet addiction.<sup>[7]</sup> Results of the Hashemian & et.al study in Ilam City showed that 43.7% of university students had internet addiction.<sup>[5]</sup> Studies in China, Taiwan, Hong Kong and Korea about Internet addiction showed that on average 12.2% of young people suffer from Internet addiction.<sup>[13]</sup> Results of studies showed that most of studies were in line with our study results and slight differences in the rate of Internet addiction in various studies can be due to differences in the type of study population and number of studied samples. However, the design of preventive and therapeutic actions are necessary for groups suffering from Internet addiction.

The results of this study showed that Internet addiction in male and female students showed no significant difference. These result were consistent with the results of the study of Vahidifar & et.al.<sup>[8]</sup> But in the study of Li and et al study<sup>[14]</sup>, Hassanzadeh<sup>[15]</sup> and Simos and colleagues<sup>[16]</sup>, internet addiction in male students was more than others. Chih-Hung and et al in a study about factors involved in internet addiction of Taiwanese students came to the conclusion that boys rather than girls to suffer Internet addiction and Online gaming addiction is a major addiction among them.<sup>[17]</sup> Canan came to the conclusion that gender has an effect on internet addiction. In his opinion Men tend to erotic fantasies Internet Search, while women are looking for an intimate and romantic relationship and prefer to remain anonymous in the Internet environment and their identity should not be revealed.<sup>[18]</sup> In the study Vahidifar & et.al. those were with some degree of Internet addiction (mild or severe) used often in the field of email and download files from the internet<sup>[8]</sup>, While in this study who had not Internet addiction often in the field of scientific and mild and severe addiction ones used in the field of internet chat. In the Mohammadi & et.al. Study most respondents have been use the Internet to chat.<sup>[12]</sup> According to the Pew Internet group, the most use of the Internet for teens is e-mail, as 72% of high school students have exchanged e-mails at least once a day.<sup>[19]</sup>

Also in this study, those who had not addiction (normal) more at night (42.1%), those who had mild addiction most at the midnight (38.5%), and those who had severe addiction use the Internet always but in the Vahidifar study, who had some degree of Internet addiction were using the Internet More from midnight until morning.<sup>[8]</sup> In this study, those who had mild and severe addiction were more likely to develop insomnia, according to results, when using the Internet (always), type of use of the Internet (Chat) and insomnia is characteristic of people addicted to Internet. Marahatta and et al in a

study showed that the prevalence of internet addiction among Health Sciences Students in Nepal is high and appropriate interventions should be taken to decreasing internet addiction rate.<sup>[20]</sup>

In this study, we have more restrictions, the first was that cross-sectional study, while the review of Internet addiction among the student population requires a more detailed studies, on the other hand, this study was performed at a number of universities were included only students, subsequent research in this area should be better on a wider range of people and topics to be considered for the accuracy of the results.

## 5. CONCLUSION

Results showed that about 20% of studied students in Ardabil universities have some degrees of Internet addiction (whether mild or severe). Therefore, to prevent its destructive effects, it is better to appropriate notification, at risk students are identified and appropriate recommendations has given them about reducing the potential damage. Also doing more multi-center studies in this topic is essential in future.

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